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New Claims

1. A process for processing OFDM-signals received simultaneously by a multi-antenna system with a plurality of separate receiving channels, characterised in that in the receiving channels, in a manner known per se, the channel correction values or the confidence values are determined from the pilots for each carrier of the OFDM-signal, from which values weighting factors are derived with which the I/Q-values of each individual carrier or OFDM-signal obtained in the OFDM-demodulator are differently weighted such that carriers received at a low level are weighted low and carriers received at a high level are weighted high, and the thus weighted I/Q-values are then added and divided by the sum of all the weighting factors.

2. A process according to Claim 1, characterised in that the I/Q-values at the output of the demodulator are fed to a time synchronisation device so that the I/Q-values of corresponding carriers of the individual receiving channels are in each case simultaneously available for further processing.

3. A process according to Claim 1 or 2, characterised in that the I/Q-values of each individual carrier of the OFDM-signal are weighted as a function of the channel correction values obtained from the pilots, such that low weighting factors are selected for large channel correction values and high weighting factors are selected for small channel correction values.

4. A process according to one of the preceding claims, characterised in that the data words available downstream of the decision device are reduced to their original I/Q-values and then complexly weighted with the confidence values.

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